

**AMENDMENTS TO THE SPECIFICATION**

Please replace the paragraph on page 9, lines 11-13, which starts with "Figs. 8A-8B illustrate ....." with the following amendment paragraph:

Figs. 8A-8B illustrate the alignment between the methylated DNA binding (MDB) ~~MDB~~ domain of methyl CpG binding protein 2 (MeCP2) ~~MeCP2~~ and demethylase and the predicted amino acid sequence of human demethylase;